

AMENDMENT TO THE CLAIMS

1 (Currently Amended). A parking barrier apparatus for controlling the access of a vehicle past a barrier comprising:

a barrier movable between a first barrier position allowing transit of the vehicle past said barrier, a second barrier position to which said barrier is moved by the passage of the vehicle over said barrier, and a third barrier position impeding movement of the vehicle past said barrier, said first barrier position being intermediate said second and third barrier positions;

a locking mechanism selectively locking said barrier in said second barrier position and said third barrier position; and

a motive assembly having an energy storage device which stores **mechanical** energy to eventually move said barrier from said second barrier position to said third barrier position when said barrier is unlocked from said second barrier position, **said energy storage device including a spring having a first spring end and a second spring end, said spring being energized by the weight of the vehicle moving over said barrier causing said barrier to move from said first barrier position to said second barrier position;**

a housing for said motive assembly having a base;

a rotatable shaft operatively connected to said first spring end, rotation of said shaft moving said barrier;

a support movable with respect to said base, said second spring end operatively connected to said support, said support moving toward said

shaft as said barrier is moved from said first barrier position to said second barrier position thereby enabling said spring to be energized sufficiently to eventually move said barrier from said second barrier position to said third barrier position.

2-8 (Canceled).

9 (Currently Amended). A parking barrier apparatus according to claim 8 1 herein wherein said support is a platform movable on said base, and as said platform moves toward said shaft said spring is substantially compressed by moving said second spring end toward said first spring end.

10(Currently Amended). A parking barrier apparatus according to claim 7 9 wherein said motive assembly further includes a mechanical gain amplifier for amplifying movement of said shaft into movement of said platform.

11(Original). A parking barrier apparatus according to claim 10 wherein said mechanical gain amplifier includes an arm attached to said shaft and a riding surface attached to said platform for translating rotatable motion of said shaft into linear motion of said platform.

12 (Original). A parking barrier apparatus according to claim 11 wherein said arm is operatively attached to said rotatable shaft and said arm has a degree of

freedom of movement relative to said shaft over a predetermined rotation of said shaft.

13(Currently Amended). A parking barrier apparatus according to claim 5 1 wherein said spring includes a damper which dampens movement of said barrier as said barrier is moved from said second barrier position to said third barrier position.

14(Original). A parking barrier apparatus according to claim 13 wherein said spring is a gas spring.

15(Currently Amended). A parking barrier apparatus according to claim 6 1 wherein said locking mechanism includes a shaft locking mechanism for selectively locking said shaft to prevent rotation of said shaft in one direction.

16(Original). A parking barrier apparatus according to claim 15 wherein said shaft locking mechanism includes a latch lock which self-latches once said shaft reaches a locking position.

17(Original). A parking barrier apparatus according to claim 16 wherein said locking mechanism further includes a motor controlling operation of said latch lock.

18(Original). A parking barrier apparatus according to claim 17 wherein said locking mechanism further includes a gearing assembly movable by said motor to unlock said latch lock.

19(Original). A parking barrier apparatus according to claim 18 wherein said locking mechanism is remote controlled.

20(Currently Amended). A parking barrier apparatus according to claim ~~7~~ 9 wherein said locking mechanism includes a platform locking mechanism selectively locking said platform to prevent movement of said platform in one direction relative to said base.

21(Original). A parking barrier apparatus according to claim 20 wherein said platform locking mechanism includes a latch lock which self-latches once said platform reaches a locking position.

22(Original). A parking barrier apparatus according to claim 21 wherein said locking mechanism further includes a motor for controlling said latch lock.

23(Original). A parking barrier apparatus according to claim 22 wherein said locking mechanism further includes a gearing assembly movable by said motor which selectively unlocks said latch lock.

24(Original). A parking barrier apparatus according to claim 23 wherein said locking mechanism is remote controlled.

25(Currently Amended). A parking barrier apparatus for controlling the access of a vehicle past a barrier comprising:

a barrier movable between a horizontal position allowing transit of the vehicle thereover, a lower ramp position also allowing transit of the vehicle thereover, and a vertical position preventing transit of the vehicle thereover, said barrier being adapted to move from said horizontal position to said ramp position by the weight of the vehicle passing thereover;

a housing having a base;

a shaft operatively connected to and moving said barrier;

a locking mechanism for selectively locking said shaft with said barrier in said ramp position or with said barrier in said vertical position; and

a motive assembly for moving said shaft including a spring having a first end and a second end, **said first spring end operably connected to said shaft and said second spring end fixedly connected to a support movable with respect to said base,** said spring as said barrier is moved from said horizontal position to said ramp position under the weight of the vehicle moving thereover storing sufficient mechanical energy subsequently to move said barrier from said ramp position to said vertical position, **by having said second spring end and support move with respect to said base,** neither of said ends of said spring being permanently anchored to said base._

26(Original). A parking barrier apparatus according to claim 25 wherein said spring is mounted on a platform movable with respect to said base.

27(Original). A parking barrier apparatus according to claim 26 wherein said platform moves toward said shaft as the barrier is moved from said horizontal position to said ramp position, said movement substantially compressing said spring.

28(Original). A parking barrier apparatus according to claim 27 wherein said motive assembly further includes a mechanical gain amplifier for amplifying movement of said shaft into movement of said platform.

29(Original). A parking barrier apparatus according to claim 28 wherein said mechanical gain amplifier includes an arm attached to said shaft and a riding surface attached to said platform for translating rotatable motion of said shaft into linear motion of said platform.

30(Original). A parking barrier apparatus according to claim 29 wherein locking mechanism prevents movement of said shaft in at least one direction and prevents movement of said platform when said barrier is in said vertical position.

31(Original). A parking barrier apparatus according to claim 30 wherein said locking mechanism includes latch locks for each of said shaft and said platform.

32(Original). A parking barrier apparatus according to claim 31 wherein said locking mechanism further includes a motor operable to selectively release said latch locks.

33(Original). A parking barrier apparatus according to claim 32 wherein said locking mechanism further includes a controller for controlling operation of said motor.

34(Original). A parking barrier apparatus according to claim 29 wherein said spring is a gas spring.

35(Original). A parking barrier apparatus according to claim 34 wherein said gas spring dampens movement as said barrier is moved from said ramp position to said vertical position.

36(Currently Amended). A method for sequencing movement of a parking barrier, the barrier **movable with respect to a base and** having a vertical vehicle impede position, a non-impede horizontal position and a lower non-impede ramp position, comprising the steps of:

locking said barrier in said vertical position against a bias force which would otherwise move said barrier;

unlocking said barrier so that said barrier moves under the influence of said barrier force to said horizontal position;

maintaining said barrier in said horizontal position until sufficient force is applied to said barrier to move it to said ramp position;

energizing a spring having a first spring end and a second spring end as said barrier is moved from said horizontal position to said ramp position;

providing sufficient energy in said spring by having said second spring end move relative to said first spring end and move relative to the base to eventually enable said spring to move said barrier from said ramp position to said vertical position against the action of said bias force;

locking said barrier in said ramp position with said spring energized until it is desired to move said barrier from said ramp position to said vertical position; and

unlocking said barrier from said ramp position to allow it to move to said vertical position.

37(Original). A method according to claim 36 wherein said spring is energized by the weight of a vehicle as the vehicle moves the barrier from said horizontal position to said ramp position.

38(Original). A method according to claim 37 further comprising the step of providing a command signal to unlock said barrier from said vertical position.

39(Original). A method according to claim 38 further comprising the step of providing a command signal to unlock said barrier from said ramp position.

40(Original). A method according to claim 37 further comprising the steps of providing control signals from a remote controller to unlock said barrier from said vertical position and from said ramp position.

41-45 (Canceled).